

What is Claimed is:

1 1. A packet group for use in a trace stream, the
2 packet group comprising:

3 at least one header packet; and

4 at least one packet subgroup, each packet having an
5 extension portion and a payload portion, the number of
6 packet subgroups determined by a field in the header
7 packet, wherein the first packet in each packet subgroup
8 includes a first extension portion, the packets following
9 the first packet in subgroup that are a continuation of the
10 first subgroup packet having a second extension.

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12 2. The packet group as recited in claim 1 wherein,
13 when in the sequence of packets of the last subgroup of
14 patents, the next sequential packet does not have the
15 second extension, the packet group has ended.

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17 3. The packet group as recited in claim 2 wherein
18 the next sequential packet begins a new packet group.

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20 4. The packet group as recited in claim 3 wherein
21 for selected packet groups, a header is implied for new
22 packet groups.

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24 5. The packet group as recited in claim 1 wherein,
25 when the header is defined to have more than one packet,

1 the extension portions of the packets following the first
2 packet can be used to convey information.

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4 6. A processor test and debug system, the system
5 comprising:

6 a host processing; and

7 a target processor, the target processor transmitting
8 trace streams to the host processing unit, the trace
9 streams permitting the host processing unit to reconstruct
10 the operation of target processing unit, at least one trace
11 stream being comprised of a sequence of packet groups, each
12 packet group including:

13 at least one header packet; and

14 at least one packet subgroup, each packet having
15 an extension portion and a payload portion, the number of
16 packet subgroups determined by a field in the header
17 packet, wherein the first packet in each packet subgroup
18 includes a first extension portion, the packets following
19 the first packet in subgroup that are a continuation of the
20 first subgroup packet having a second extension.

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22 7. The packet group as recited in claim 6 wherein,
23 when in the sequence of packets of the last subgroup of
24 patents, the next sequential packet does not have the
25 second extension, the packet group has ended.

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1 8. The packet group as recited in claim 7 wherein
2 the next sequential packet begins a new packet group.

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4 9. The method for transferring information from a
5 target processor to a host processing unit in trace
6 streams, the method comprising:

7 dividing the information into packet groups;

8 formatting each packet group to include at least one
9 header packet; and

10 formatting the packet group to include at least one
11 packet subgroup, each packet subgroup having an extension
12 portion and a payload portion, the number of packet
13 subgroups determined by a field in the header packet,
14 wherein the first packet in each packet subgroup includes a
15 first extension portion, the packets following the first
16 packet in subgroup that are a continuation of the first
17 subgroup packet having a second extension.

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19 10. The method as recited in claim 9 wherein, when in
20 the sequence of packets of the last subgroup of packets the
21 next sequential packet does not have the second extension,
22 the packet group has ended.